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NATO DEFENSE POSTURE IN AN ENVIRONMENT
OF STRATEGIC PARITY AND PRECISION WEAPONRY

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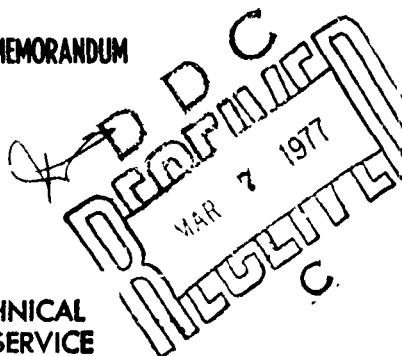
**NATO DEFENSE POSTURE IN AN
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US ARMY WAR COLLEGE
Carlisle Barracks, Pennsylvania**

**NATO DEFENSE POSTURE IN AN ENVIRONMENT
OF STRATEGIC PARITY AND PRECISION WEAPONRY**

by

Robert Kennedy

30 December 1976

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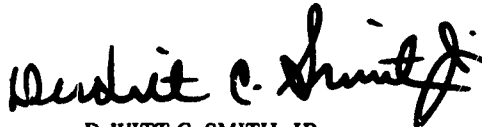
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FOREWORD

The advent of a rough strategic and theater nuclear parity and the continued buildup of Warsaw Pact conventional capabilities have resulted in new perceptions concerning the balance of arms in central Europe. This memorandum considers two schools of thought which have gained prominence in their attempts to forge a more credible defense posture for NATO: those who support a conventional-emphasis strategy; and those who contend that a policy which emphasizes the early use of nuclear weapons can provide the only sound basis for credible deterrence and effective defense in Western Europe. The author concludes that only through the development of force postures which provide NATO with both an effective conventional deterrent and defense against conventional aggression, and an effective theater nuclear deterrent and defense as a counter to nuclear aggression, can the West hope to ameliorate the psychological effect of Soviet conventional and nuclear forces which threaten the undermining of the North Atlantic Alliance.

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This memorandum was prepared as a contribution to the field of national security research and study. As such, it does not reflect the official view of the College, the Department of the Army, or the Department of Defense.



DeWITT C. SMITH, JR.
Major General, USA
Commandant

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MR. ROBERT KENNEDY joined the Strategic Studies Institute in 1974. A graduate of the US Air Force Academy, Mr. Kennedy has a master's degree and is currently completing his doctoral dissertation in political science at Georgetown University. Mr. Kennedy served on active duty briefly with the Army and then with the Air Force from 1958 to 1971 and is currently a reserve officer with the Air National Guard. Prior to his present position, he was a foreign affairs officer, US Arms Control and Disarmament Agency.

NATO DEFENSE POSTURE IN AN ENVIRONMENT OF STRATEGIC PARITY AND PRECISION WEAPONRY

Since World War II the principal focus of Western European defense policies has centered on efforts designed to offset the preponderance of Soviet conventional military power. To this end, Western technological superiority has been enlisted to effect a balance of arms sufficient to serve as a counter to the threat posed by the numerically superior Soviet conventional forces.

TECHNOLOGY AND THE POSTWAR BALANCE

Immediately following World War II, Western Europe was confronted with some 200 Soviet divisions. With only a dozen or so scattered and understrength divisions, Western European states were concerned that the vastly superior Soviet forces would prove to be a useful psychological tool in effecting political infiltration, subversion, and an ultimate takeover of Western Europe.

In response to the Soviet threat, Western states joined in signing the North Atlantic Treaty. The Alliance was not generally envisaged as a means of redressing the immediate conventional military imbalance on the continent, but rather as a means of bolstering Western European resolve by committing America's technological superiority and military

potential to the defense of Europe.¹ Western Europeans believed that US nuclear superiority would serve as a final arbiter of the military balance on the continent, and hence, they viewed it as a valuable deterrent to Soviet aggression. Under such a protective umbrella, Western Europe would be freed from the psychological constraints imposed by Russia's huge army and would be able to pursue the economic recovery necessary for its long-term stability.

The explosion of an atomic device by the Soviet Union in late 1949 did little to change Western faith in the deterrent value of US strategic weapons. Many Western leaders who were concerned over the Soviet achievement simply concluded that for deterrence to be effective the United States had to maintain its nuclear superiority.² Following the outbreak of the Korean War, however, new perceptions of the Soviet threat and Western countercapabilities began to emerge. Western statesmen began to question two basic assumptions upon which the foundation of European security had come to rest: (1) the Soviet Union had no desire to pursue her designs on Western Europe by engaging North Atlantic Treaty Organization (NATO) forces in direct combat; and, (2) even if the first assumption was in error, America's nuclear weaponry was sufficient to deter the USSR from initiating overt military aggression. President Truman underscored such concerns by declaring, "The attack in Korea makes it plain beyond all doubt that communism has passed beyond the use of subversion to conquer independent nations and will now use armed invasion and war."³

Confronted with the possibility of renewed Soviet military adventurism in Western Europe, a number of Western defense analysts began to reason that Soviet possession of nuclear weapons might serve to deter America's punitive use of such weapons except in response to a nuclear assault upon the United States or, possibly, nuclear strikes against US Allies. If such was the case, the security against conventional attack provided by America's strategic nuclear guaranty had clearly depreciated.

In response to the newly perceived threat to Western Europe, NATO undertook its first serious attempt to create the forces necessary to bring balance to the European conventional equation.⁴ However, despite considerable progress in improving NATO's conventional capability, it was becoming evident by mid-1953 that the Alliance was either unwilling or unable to meet the force goals set earlier at Lisbon and that a serious imbalance would remain between Soviet and NATO conventional capabilities.

Once again, technology offered a means of insuring a favorable balance of arms in Europe. In 1949, Chairman of the Joint Chiefs of Staff General Omar Bradley had proposed that the United States begin developing tactical nuclear weapons (TNW's) to offset Soviet conventional capabilities. By 1953 the United States had successfully tested low-yield, battlefield nuclear devices. Later that same year, President Eisenhower authorized the deployment of TNW's to Europe. Conventional forces were to serve primarily as a "tripwire" which would clearly define an aggression in order to justify a nuclear response. At a time when the Soviet Union possessed neither TNW's nor a credible strategic second-strike capability, the deployment of TNW's to Europe appeared to offer a strong deterrent to Soviet aggression.

By the early 1960's, however, Western statesmen began questioning anew the assumption that America's nuclear weaponry was sufficient to deter Soviet conventional aggression. Soviet advances in medium range and intermediate range ballistic missiles (MR, IRBM's), the launching of two earth satellites, Russian successes with intercontinental ballistic missiles (ICBM's), and the availability of TNW's to Soviet ground forces seemed to serve notice that a NATO first use of TNW's might be met by a Soviet response in kind. Hence, the utility of a defense based on an almost spasmodic nuclear response to a major Warsaw Pact aggression was called into question, and new attempts to forge an effective deterrent to conventional aggression were undertaken.

In 1967 NATO officially adopted the strategy of "flexible response," which was designed to meet, with like force, the full range of possible Soviet/Warsaw Pact military threats. Europeans, however, were unenthusiastic in their support for this new doctrine. They continued to show the familiar marked disinclination to produce the type and numbers of conventional forces that appeared necessary to stop a determined nonnuclear attack. Rather, they preferred to rely on the numerical and technological superiority of the US nuclear arsenal in order to bring balance to the European military equation. After all, Western statesmen could reason that prudent Soviet planners contemplating an assault on Western Europe, if confronted with a policy which coupled European defense to the superior American tactical and strategic nuclear forces, would be effectively deterred from an aggression that might reach a level at which the Soviets were at a clear disadvantage.

STRATEGIC PARITY AND THE BALANCE OF ARMS

With the advent of a strategic nuclear parity between the

superpowers, new perceptions concerning the balance of arms have begun to emerge. The nuclear weapons of the United States continue to remain technologically superior to those of the Soviet Union. However, in an age where each superpower is considered to have sufficient nuclear forces to sustain a nuclear first strike and then issue a devastating retaliatory response, the threat of escalation to general nuclear war appears to be a less credible basis for NATO's deterrent and defense policies than when the United States had an overwhelming superiority. The current stalemate based on mutual strategic vulnerability has reduced the perceived likelihood that the great powers would be willing to trade Washington or Moscow for Paris or Prague and has left many West Europeans with uncertainties concerning the level of military activity which might be tolerated by the superpowers in Europe before the exchange of central systems. Some Western analysts have reasoned: If the United States and USSR are mutually deterred at the strategic nuclear level, then no credible deterrent exists at the conventional level short of threatening suicide for Western Europe through theater nuclear warfare. Such a situation is clearly unacceptable to Western Europeans, who continue to seek defense policies that will serve to deter all levels of Soviet aggression.

One might expect that under such circumstances the Western states would finally embark on the forging of conventional forces sufficient to deter a Soviet nonnuclear thrust. However, nuclear parity has been accompanied by the politics of detente. Hence, while perceptions concerning the credibility of NATO's defense posture have been altered as a result of a new balance of arms stemming from a "rough strategic parity" between the United States and the USSR, perceptions of the Soviet threat to Western Europe have become blurred. The pursuit of detente by the USSR on the diplomatic front has suggested a relaxation of tensions and the creation of an environment in which opposing military forces can be stabilized or even reduced. Such an environment complicates the political problem of allocating resources for military forces sufficient to counter Soviet conventional capabilities. Most nations of Western Europe, still reeling from a crisis in energy and economics and confronted with multiple competing demands in the domestic sectors of their economies, are loath to consider matching the conventional armaments of the Warsaw Pact on a one for one basis. Nevertheless, the continued qualitative and quantitative buildup of Pact forces has not gone unnoticed. Soviet advances in mobility and firepower, improvements in logistical support and in command and

control effectiveness, and increases in manpower and armaments have raised questions concerning Soviet intent.⁵ Hence, today while there is little fear of a massive Soviet invasion of Western Europe, the potential for such an assault remains, and with it remains the vexing political problem of forging defense policies and forces sufficient to offset the political and potential military effects of Soviet conventional force capabilities.

Once again, as in the past, one of the central questions confronting the Alliance is whether the Western defense posture can be improved so that it will continue to be perceived by West and East alike as a credible deterrent to and, failing that, an effective defense against nonnuclear aggression, thereby preserving for the Western Europeans the right to make policy decisions free from any compelling external coercion. To this end armament technologies of the last decade and their applications in both the latter stages of the Vietnam conflict and the October 1973 Arab-Israeli War have captured the imagination of defense analysts and have fired a new optimism concerning the potential for a successful defense of Western Europe.

While proposals concerning adjustments to NATO defense posture are as varied as its students are numerous, in recent years two schools of thought have gained prominence in their attempts to forge a more credible and effective NATO defense policy in an environment characterized by nuclear parity, detente, and the continued buildup of Warsaw Pact conventional forces. While there have been significant differences within these schools of thought concerning means and methods of achieving their objectives, broadly speaking, one school of thought contends that a conventional-emphasis strategy is not only feasible, but also desirable while the other holds that only a policy which emphasizes the early use of nuclear weapons can provide a sound basis for a credible deterrence and a feasible defense against a determined Soviet conventional assault on Western Europe. Both schools have their analytical roots well anchored in recent technological advances. They both contend that, given the current European political, economic, and military environment, the coherent exploitation by NATO of technological advances of the past few years is logical and imperative. However, they differ on how these new technologies should be applied, and hence, their solutions have diverging implications for NATO defense posture.

CONVENTIONAL-EMPHASIS CONCEPT

Advocates of a conventional-emphasis concept for the defense of

NATO generally can be categorized as nuclear pessimists and conventional optimists who focus their attention on conventional precision-guided munitions (PGM's) and force restructuring. They view Soviet/Warsaw Pact conventional forces as the principal threat to West European security, and, in general, question the battlefield utility of TNW's and/or presume that any use of such weapons would lead rapidly to an uncontrollable escalation with risks disproportionate to potential gains. They contend that only a relatively small nuclear capability is required in order to preserve an element of uncertainty as to NATO's intentions. Emphasizing concern over the prospect of a nuclear exchange in Western Europe, a noted analyst contends that a "tactical nuclear defense of Europe would lead to its destruction."⁶ Speaking about the need for TNW's in Europe, Paul C. Warnke, former Assistant Secretary of Defense for International Security Affairs, has noted that, "The deterrent purpose of tactical weapons could abundantly be served by the maintenance of a few hundred at most."⁷ Voicing a similar position concerning European theater requirements for TNW's, Alain C. Enthoven, former Assistant Secretary of Defense for Systems Analysis declared, "... that all the useful purposes can be adequately served by 1,000 tactical nuclear weapons..."⁸

Proponents of this concept are convinced that NATO forces have the potential for the successful defense of Europe. Many contend that the technological improvements which have resulted in a host of precision-guided or so-called "smart" munitions, if coupled with proper employment policies and appropriate force structures, not only would be capable of a successful defense of Western Europe against a conventional assault without resort to nuclear weaponry, but also would serve as an effective deterrent.⁹

Writing at a time when PGM was in its embryonic state, Enthoven gave impetus to the conventional-emphasis school by noting that a "satisfactory NATO conventional capability is feasible" and that "without effective nonnuclear forces, NATO would be politically weak in a crisis."¹⁰

Both Enthoven and Warnke reaffirmed the need for strong conventional forces in Europe in their testimony before Congress in March 1974. Warnke noted, "that NATO is indeed capable of mounting a conventional defense that would deflect even a large-scale Soviet attack," and urged that NATO acquire "stocks and reinforcements that would permit the pursuance of a strong conventional defense for whatever period is necessary to convince the Soviets that their aggression is futile."¹¹

The impetus given the conventional-emphasis proponents by Enthoven, Warnke, and other notables, moreover, has received a dramatic revitalization as a result of analyses of the role PGM's played in the latter stages of the Vietnam conflict and during the 1973 Arab-Israeli War. In May 1972 the Thanh Hoa bridge in North Vietnam was destroyed without the loss of a single plane. In a few minutes, US aircraft equipped with precision-guided "smart" bombs were able to accomplish what for years hundreds of pilots had been unable to do with standard conventional munitions. Subsequently, a few aircraft were able to destroy the Paul Doumer bridge near Hanoi without the loss of a plane. In 1967 it had taken numerous sorties and the loss of eight aircraft to accomplish the same objective.¹²

The Arab-Israeli conflict of 1973 further emphasized the value of PGM's. Israeli losses to antitank and antiaircraft precision-guided munitions awakened the world to a new dimension of conventional warfare. Speaking about the potential afforded by advances in weapons technology, Dr. Malcom Currie, Director of Defense Research and Engineering, has said that the new technological developments have "brought us to the threshold of what I believe will become a true revolution in warfare . . . One precision munition can do the work of hundreds of rounds of bombs . . . This capability will make unnecessary repeated attacks on a target . . . and thereby reduce loss of life and equipment."¹³

However, a number of those who contend that a conventional defense for NATO is feasible have suggested that only through the adoption of appropriate deployment/employment policies and force structures can a defense based on modern precision-guided weapons be optimized.¹⁴ To such ends, Steven Canby has suggested NATO could almost triple its number of division equivalents through restructuring.¹⁵ Conventional forces could be reorganized into small (company size) combat groupings, equipped and supported by conventional precision-guided weapons, and deployed in depth in a checkerboard defense pattern. Attacking armor would be embedded in a defensive grid, so as to stop its forward movement, weaken it and create the opportunity for counterattack.¹⁶ The large number of small strong-points would also discourage the enemy from using nuclear weapons because profitable targets would not be presented.

While proponents of this concept have stimulated serious thought within the US and NATO defense communities, its opponents have listed a number of disadvantages. First, cost—US Allies in Europe can be

expected to object to the enormous cost of procuring large numbers of conventional armaments including large quantities of PGM's required for an effective conventional defense. Second, depth—without France, NATO may not possess sufficient depth for executing the concept; lines of communication (LOC's) might be cut, resupply impeded, and any counteroffensive, designed to eject Warsaw Pact forces, impossible. Third, the restructuring of forces—small company size units equipped with light antitank weapons may be effective against the historic conception of a tank army *blitzkrieg*, but are inappropriate for defense against a modern combined arms team which is more typically characteristic of Soviet motorized rifle divisions and tank armies. Finally, the prime objections which are often overshadowed by the others—a prolonged conventional defense might devastate Western Europe while, at the same time, removal of most of the US TNW's from Europe might reduce the deterrence against a Soviet nuclear assault on Western Europe.

As one observer has suggested, perhaps the greatest weakness of removing TNW from Europe "... is that it ignores the tremendous political significance of deployed US TNW to our European allies."¹⁷ Adoption of the conventional-emphasis concept might serve to increase European suspicions of the decoupling of US strategic forces from European defense and reinforce anxieties and frustrations caused by a perceived inability to forge credible deterrent policies in the face of continued Warsaw Pact conventional force buildups.

NUCLEAR-EMPHASIS CONCEPT

Proponents of a nuclear-emphasis defense¹⁸ for NATO generally presume that NATO would inevitably lose a conventional war and conclude "that Warsaw Pact forces must be stopped very close to their starting lines if they are to be stopped at all."¹⁹ To this end technological advances of the last decade are viewed as a means of enhancing the deterrent and defense utility of theater nuclear weapons rather than as a means of enhancing the conventional defense. Advocates of a nuclear-emphasis concept contend that through the miniaturization and modernization of NATO nuclear weapons to incorporate the latest tailored effects and precision guidance technologies, the current tactical nuclear capability "which has little or no real deterrent value beyond that attributed to the uncertainty of its use,"²⁰ and which is unusable if deterrence fails,²¹ could be replaced

by TNW's that offer the prospect of providing a credible deterrent and an effective defense.

Speaking of the utility of precision-guided weapons systems, General Graf von Kielmansegg, formerly Commander-in-Chief of Allied Forces Central Europe, observed that "The greatest advantage of these weapons probably lies in their effects when used as a vehicle for very small nuclear warheads."²² Underscoring this view, Colin Gray contends that "Fashionable views notwithstanding, there are no great conventional equalizers that are at all likely greatly to improve the local military balance in Europe."²³ Like General Kielmansegg, Gray concludes that the real value of precision guidance technologies "lies in the potential for vastly improving the accuracy with which low-yield tactical nuclear weapons can be delivered."²⁴ In a 1973 article W. S. Bennett, *et. al.*, hypothesized that "deterrence is a function—possibly some product—of how an adversary views the military potential of your force and your willingness to use that force."²⁵ Furthermore, they maintained that the nature of the NATO nuclear stockpile, characterized by high-yield, indiscriminate weapons, undermines the credibility of its use. The employment of such weapons would result in such a high level of collateral damage that a "US President would encounter great reluctance, and therefore great difficulty, in releasing defensive nuclear forces in NATO..."²⁶ Hence, they concluded that NATO's current nuclear forces fail to provide a credible deterrent and are inadequate for an effective defense. To remedy the situation they proposed a defense strategy which would call for the immediate engagement of an attacker with low-yield nuclear weapons for all but the most trivial incursions.²⁷ Such a policy is seen as a means of improving deterrence by confronting the Soviets with a nuclear defensive force which is capable of stopping the Soviets before they become irreversibly committed as a result of either having secured a significant part of NATO territory or having suffered nuclear retaliation of such a magnitude that they feel compelled to escalate.²⁸ Moreover, such a defense would be credible since collateral damage would be minimized.

In one sense, such a concept is an attempt to devise a more perfect deterrent—a clear statement that conventional aggression would inevitably lead to a crossing of the nuclear threshold and all the uncertainties such an action might entail. In another sense, it is a return to the "tripwire" philosophy of the 1950's, however, instead of proposing a massive retaliation against the homeland of the Soviet

Union, the nuclear-emphasis concept would have NATO's tactical nuclear forces use large numbers of highly accurate low-yield TNW's and atomic demolition munitions (ADM's) very early in the conflict to destroy leading formations at or near the international border. Moreover, as one author has suggested, the adoption of such a concept not only would reduce the prospect of a successful Soviet nonnuclear thrust in pursuit of territorial or political gain, but also would provide a functional, superior equivalent to the conventional pause currently envisaged.²⁹ As Colin Gray has noted:

Observing the annihilation of their leading formations very close to their starting lines, Soviet leaders would be able to reconsider the wisdom of their actions. However, unlike the more plausible conventional scenarios, the Soviet Union would not be rethinking in a context characterized by substantial gains of West Germany territory.³⁰

Opponents of this proposal note several disadvantages. First, the concept would require that the United States and its Allies relinquish a large measure of the political control they now exercise over their theater nuclear weapons in order to permit an immediate, near-automatic, nuclear response to aggression. Secondly, some Allies would view the concept as a new strategy which completely decouples the defense of Europe from US central nuclear systems and as an attempt to provide the superpowers with sanctuary status during a nuclear war in Europe. Third, even if the nuclear-emphasis concept were politically acceptable, military feasibility would depend on cooperation from the enemy. The concept assumes that Warsaw Pact forces would ignore or dismiss the threat of NATO's very early use of tactical nuclear weapons and would attack using only conventional weapons. Fourth, a concept which proposes an automatic early release fails to take into consideration conflicts which might result through accident or miscalculation and without the full sanction of Soviet authorities. To initiate the use of large numbers of low-yield nuclear weapons might invite a continuation rather than an early termination of the conflict. Finally, Europeans are likely to be uneasy over any defense concept that insures the prospect of a nuclear conflict *in Europe* should deterrence fail.

BALANCED ALTERNATIVE: A MORE FLEXIBLE RESPONSE

Dr. Morton Halperin once remarked that the NATO doctrine is one

in which "we will fight with conventional forces until we are losing, then we will fight with tactical nuclear weapons until we are losing and then we will blow up the world."³¹ This statement reflects a concern for the shortcomings of both the conventional and nuclear force postures in an environment of strategic nuclear parity. Proponents of the conventional-emphasis concept seek to rectify the current conventional imbalance—adding a flexibility to NATO conventional response options heretofore unavailable. However, they would do so at the expense of NATO's tactical nuclear capabilities which they would draw down, in some cases, to a few hundred or perhaps a thousand weapons. The resultant posture would have an unfavorable impact on the theater nuclear balance and, in an era of strategic nuclear parity, might exacerbate European fears of a nuclear war in Europe and, in time of conflict, encourage the Soviet Union to escalate hostilities to the theater nuclear level, thereby forcing the United States to choose between theater nuclear defeat and a strategic exchange. Moreover, by removing a significant portion of the Alliance's theater nuclear escalatory option, such a posture would exacerbate rather than mollify European concerns over the prospects of a prolonged conventional conflict in Europe.

Proponents of the nuclear-emphasis concept seek to improve theater nuclear forces so that they provide a credible deterrent to and an effective defense against both conventional and nuclear aggression. They see little need for flexible conventional responses which could only be added at great cost. Rather, as one author has suggested, they would rely on an "*inflexible* tactical nuclear response—meaning the prompt resort to whatever variety and quantity of nuclear weapons are necessary in order to halt a Warsaw Pact offence . . ."³² However, such a posture requires "a considerable devolution of battlefield use decisionmaking authority"³³ if TNW's are to be employed in a timely manner. Failure to predelegate release authority would enasculate such a defense concept, leave Europe vulnerable to the threat of a rapid Soviet nonnuclear thrust in support of limited objectives, and intensify the current psychological effect of Soviet conventional forces.

On the other hand, as Halperin has noted, a devolution of nuclear release authority would "increase the probability that nuclear weapons will be used in Europe in the event of a minor clash without explicit authority from the President of the United States."³⁴ Moreover, since there is no guarantee that the Soviets might not respond in kind, it risks nuclear warfare in Europe in response to clashes which may be

favorably resolved at the nonnuclear level. Hence, such a concept would permit the specter of nuclear warfare to haunt our European Allies during every crisis, tend to lobby in favor of a Western European accommodation with the Soviet Union, and in turn, result in a certain de facto Soviet control of the foreign policy machinery of Western European states.

Contrary to what one might infer from Halperin's remark concerning NATO doctrine, the author contends that there is nothing inherently wrong with the doctrine of flexible response. For political and economic reasons, however, the United States and its NATO Allies have failed to provide the conventional and nuclear forces required to offer a truly flexible response to all levels of aggression. A force posture which incorporates many of the features of both the conventional and the nuclear-emphasis concepts is necessary if the Alliance military forces are to provide a deterrent and defense which does not exacerbate the psychological effect of Soviet conventional and nuclear forces and, hence, indirectly contribute to the insidious undermining of the North Atlantic Alliance. What is required is an effective conventional deterrent and defense against conventional aggression plus an effective theater nuclear deterrent and defense as a counter to nuclear aggression.

IMPROVING THE CONVENTIONAL DEFENSE

The Warsaw Pact enjoys a preponderance of armor, artillery, and tactical aircraft in the critical central region. By maximizing the elements of surprise and mass, the Pact has been credited with an ability to apply its overwhelmingly superior numbers in order to advance at rates in excess of 80km per day.³⁵ NATO's ability to defend against such a conventional attack can be improved through two primary courses of action, each of which can be pursued independently or in conjunction with the other. First, NATO can improve its forces, and secondly, it can negotiate a more stable conventional balance.

Continued emphasis on the proliferation of precision-guided and area munitions coupled with appropriate organization offers the prospect of substantially improving NATO's conventional defense capabilities. NATO's conventional forces could be better organized to maximize the attrition of Soviet armor. As one analyst has noted, zones of attrition could be established.³⁶ The forward zone would be assigned to strong covering forces composed of numerous small, highly mobile antiarmor (A-ARM) units supported by helicopter and airborne

A-ARM forces. Main defense forces, also heavy in antiarmor capability, would be assigned attrition zones to the rear of the covering force. The main and covering forces would be tailored to suit the situation and terrain.

In addition to regular forces, territorial and reserve units could be better organized to maximize the attrition of Warsaw Pact forces and support NATO counterattack capabilities, while continuing to assist in rear area security. The FRG territorial army might be organized so that in forward areas it would be heavy in antiarmor and relatively light in facilities protection units with almost no logistic support units. Forward area territorial army A-ARM forces could be armed with inexpensive, easy to maintain and operate, lightweight, easily-transported antiarmor weapons. Because of the specialized nature and ease of training for these units, they could be maintained in a light cadre status to be fleshed out by reserves within 24 hours. The bulk of the reserves in rear areas could be used as field army replacements or to fill out field army cadre units to be used for deep defense and counteraction. In other NATO countries, a sizeable portion of reserves could be tasked as A-ARM forces for immediate mobilization (24 hours) and transportation to the battle area.

Looking forward to the technology available within the next decade or so, one can envision a credible conventional defense capability for NATO. At the first sign of Pact aggression, NATO air forces would launch to counter Pact frontal aviation, to suppress Soviet/Warsaw Pact air defenses, and in conjunction with ground, rocket and missile forces, would scatter mines and sensors along likely approach routes. Sensors, satellites, and remotely piloted vehicles (RPV's) would locate Pact forward and main force elements. Allied artillery, missile, and air forces would launch PGM and area munitions to counter aggression. As Pact armored forces closed with forward NATO covering elements, ground mobile regular, reserve, and territorial A-ARM units, supported by air and artillery delivered antiarmor PGM's and area munitions, would slow, attrite, and channel Pact forces into preselected kill zones. Backtracking radars and satellites linked to fire control systems could assist in neutralizing enemy artillery. Air forces, operating under the direction of Allied ground controlled intercept (GCI) radars, coupled with antiaircraft artillery, SAM's, and infantry fired antiaircraft missiles, would reduce the Soviet/Warsaw Pact aviation threat, while mines and bomblets would be used to further attrite tank forces and decimate accompanying infantry. Stripped of large portions of their

artillery, air force, and infantry support, the reduced numbers of Soviet/Warsaw Pact armored and mechanized forces could be successfully engaged by main force elements capable of slowing and/or halting the attacking force. NATO would then gain the time necessary to mobilize forces needed to eject Pact troops from Allied territories.

If the Soviets perceive NATO as capable of successfully impeding a nonnuclear assault in order to gain time to mobilize its vast resources, disperse its forces, and prepare for a possible nuclear exchange, the Soviet planners would be likely to reconsider actions which might lead to the dilemma of having to choose between failure or nuclear warfare.

In conjunction with force improvements, negotiations offer the prospect of achieving a more stable conventional balance. In future meetings on European security, the acceptance of confidence-building measures designed to provide a sufficient, mandatory advanced warning of troop movements as well as maneuvers, as provided for in the Final Act of Conference on Security and Cooperation in Europe (CSCE), would enhance European confidence that NATO would be able to mobilize its forces prior to a Soviet armor advance across Europe. Moreover, through Mutual Balanced Force Reduction (MBFR) negotiations, a better numerical balance and stabilizing measures associated with maintaining that balance would reduce the psychological effect of the Soviet Union's armored forces. In negotiating improvements to the conventional balance, however, caution must be exercised so as not to induce instability at the theater nuclear level. Any agreement that reduces NATO's theater nuclear capability in an attempt to achieve a conventional balance must also secure limitations on Soviet/Warsaw Pact nuclear forces in order to insure that theater nuclear forces remain in balance.

ENHANCING NUCLEAR DETERRENCE

As the posture of NATO's conventional forces must be altered from one which emphasizes deterrence through escalation to one which stresses deterrence through denial by countervailing force, so NATO's theater nuclear forces must be structured to provide a credible deterrence by providing an effective defense against a theater nuclear attack, short of requiring an escalation to the strategic level.

Before the advent of strategic parity between the superpowers, the prime reason for maintaining a US theater nuclear capability in Europe was to offset the imbalance of conventional forces. However, in an era

in which many have come to question the value of strategic forces as a deterrent to theater nuclear conflict, theater nuclear forces are essential if NATO is to counter the psychological and potential military effect of Soviet TNW's. As a minimum, such forces must be capable of deterring a Soviet first use of TNW's and should offer options which reduce an adversary's incentive to extend or escalate an ongoing nuclear conflict. In short, NATO's theater forces should be postured so that Russian planners are assured that NATO is capable of responding to a first or subsequent use of nuclear weapons in such a manner that they would be forced to choose between a negotiated withdrawal or escalation to a strategic nuclear exchange. Confronted by such forces, Soviet planners who might miscalculate NATO's capability for conventional defense could not ignore the prospect of a conventional conflict escalating to the nuclear level.

Despite their enormous destructive potential, however, NATO's theater nuclear forces are becoming less useful as a deterrent to nuclear aggression. For a deterrent to be credible the Soviet Union must believe that NATO is not only capable, but also willing to do what it threatens. However, NATO's current theater nuclear forces are vulnerable to a first strike by an ever-improving Soviet nuclear capability, are poorly positioned to provide effective nuclear fires in support of conventional and nuclear operations on the north German plain, and because of warhead size and lack of accuracy, are ill-suited for battlefield use where the disposition of friendly troops and Allied populations require a minimum of collateral damage.

The Alliance's current theater nuclear posture can be improved in a number of ways. First, NATO can negotiate a reduction in the number of TNW's in the NATO guidelines area (NGA)³⁷ and reposition the reduced weapons in European countries outside of the NGA. Such a reduction would serve two purposes. It not only would limit the number of shorter range Soviet weapons available for battlefield use should the Soviet Union contemplate a limited use of nuclear weapons but also would ameliorate the psychological effect of the growing Soviet nuclear forces in Eastern Europe. In order to insure the success of limited nuclear operations, Soviet planners would be required to use longer range weapons launched quite probably from the Soviet Union which might communicate a higher level of conflict escalation than they might wish. Moreover, such a repositioning of weapons outside of the NGA would reduce the number of NATO nuclear weapons vulnerable to attack by shorter range Soviet systems such as nuclear artillery, FROGs, Scuds, and frontal aviation.³⁸

Second, the United States could deploy highly mobile, medium range nuclear cruise missiles to Western Europe to be positioned outside of the range of the bulk of Soviet theater nuclear capabilities. Such missiles could be tasked with missions currently assigned tactical aircraft that are stationed within reach of Soviet shorter-range nuclear systems and frontal aviation. This would release a large portion of NATO's tactical aircraft for full commitment to the conventional battle while reducing the overall vulnerability of NATO's nuclear forces.

Third, in order to rectify the disparity of nuclear support available to NORTHAG and CENTAG, the Alliance could make provision for the peacetime deployment of US nuclear units to NORTHAG, enhance Allied nuclear capabilities in the north, and/or establish two separate, overwatching nuclear-only commands—one dispersed well to the rear of NORTHAG and one to the rear of CENTAG.³⁹ The establishment of such commands "would equalize the current imbalance in nuclear support between NORTHAG and CENTAG, decrease the vulnerability of NATO's tactical nuclear assets, and permit SACEUR to move nuclear-capable forces within the theater as necessary . . ."⁴⁰ Moreover, such commands would help to eliminate the redundancy in nuclear weapons which results when the requirements for nuclear fires are aggregated at lower echelons of command.

Finally, if NATO is to improve its capability to conduct nuclear operations in support of friendly troops while minimizing collateral damage, it will be necessary to modernize a significant portion of the current generation of TNW's to incorporate the latest in precision-guidance, miniaturization, and/or tailored effects technology. It is recognized that small weapons may not be desired in all cases. Therefore a number of larger weapons will need to be retained. However, as Jeffrey Record has noted, "despite the existence of selectable yields on some warheads, the destructiveness of many US TNW's surpasses the degree sufficient for discrete use at either the battlefield or theater level."⁴¹ By employing highly accurate nuclear weapons of low yield, NATO would not only be able to provide effective support to troops in contact, but also could minimize the danger to Allied population centers.

CONCLUSION

With the development of conventional forces capable of deterring and, if necessary, defending against any level of potential

Soviet/Warsaw Pact conventional aggression and with theater nuclear forces relatively invulnerable to a Soviet first use of nuclear weapons and capable of conducting a battlefield defense, NATO would possess a truly flexible response capable of deterring and, if necessary, responding to the full spectrum of potential Soviet aggression. Moreover, the United States would be reassured that the "successful" conclusion to a major conflict in Western Europe need not depend on the ultimate resort to a strategic nuclear exchange. Perhaps, more important, however, through the balanced improvements to both conventional and nuclear forces noted above, the nations of Western Europe would largely be freed from the psychological effects of the vast military capabilities the Soviet Union maintains in Eastern Europe. Western Europeans no longer would be hostage to the fear of a successful Soviet conventional thrust across Europe or to concerns that a conflict between NATO and the Warsaw Pact would likely result in the devastation of Europe. Rather, they would be assured that NATO would be capable of responding successfully to any level of aggression and that such a capability serves as a clear deterrent to any potential aggressor.

ENDNOTES

1. For a thorough examination of the political and military objectives of the Atlantic Alliance see Robert E. Osgood, *NATO: The Entangling Alliance*, pp. 28-51.
2. *Ibid.*, p. 52.
3. "Statement, June 27, 1950," *Department of State Bulletin*, July 3, 1950, p. 5.
4. In Lisbon in February 1952, Allied governments adopted the military goals proposed by the Report of the Wise Men. Member states agreed to contribute to the joint defense a total of 50 divisions, 4000 aircraft, and "strong naval forces" by the end of 1952 and, provisionally, 75 divisions and 6500 aircraft by 1953, and 96 divisions and 9000 aircraft by the end of 1954.
5. For a further discussion of the seeming contradiction of Soviet policies and their effects on Western Europe. see Robert Kennedy, "Nonconsonant Detente and NATO," *National Security and Detente*, 1976, pp. 117-129.
6. Heinz Trettner, "Tactical Nuclear Weapons for Europe," *Military Review*, July 1971, p. 48.
7. Statement of Paul C. Warnke, *Hearings Before the Subcommittee on US Security Agreements and Commitments Abroad and the Subcommittee on Arms Control, International Law and Organization of the Committee on Foreign Relations, United States Senate*, p. 63.
8. Statement of Alain C. Enthoven, *Hearings Before the Subcommittee on US Security Agreements and Commitments Abroad and the Subcommittee on Arms Control, International Law and Organization of the Committee on Foreign Relations, United States Senate*, p. 86.
9. See especially Richard Burt, "New Weapons Technologies and European Security," *Orbis*, Summer 1975, pp. 514-532 and John H. Morse, "New Weapons Technologies: Implications for NATO," *Orbis*, Summer 1975, pp. 497-513.
10. Alain C. Enthoven and K. Wayne Smith, *How Much is Enough: Shaping the Defense Program, 1961-1969*, p. 162.
11. Warnke, p. 60.
12. Richard D. Hilton, "What Every Ground Commander Should Know About Guided Bombs," *Army*, June 1973, p. 29.
13. "Visions of the Next War," *Newsweek*, April 22, 1974, pp. 52 and 54.
14. See Steven Canby, "The Alliance and Europe: Part IV Military Doctrine and Technology," *Adelphi Papers No. 109*, Winter 1974/75 or R. W. Komer, "Treating NATO's Self-inflicted Wound," *Foreign Policy*, Winter 1973-74.
15. *Ibid.*, p. 22.
16. *Ibid.*, p. 27.
17. Jeffrey Record, *US Nuclear Weapons in Europe. Issues and Alternatives*, p. 68.
18. Colin Gray has suggested a number of variants or "posture cores" which emphasize the use of nuclear weapons in the defense of Europe. See Colin Gray, "Deterrence and Defense in Europe: Revising NATO's Theater Nuclear Posture," *RUSI*, December 1974, pp. 4-5.
19. *Ibid.*, p. 4.
20. W. S. Bennett, et al., "A Credible Nuclear-Emphasis Defense for NATO," *Orbis*, Summer 1973, p. 465.

21. *Ibid.*, p. 464.
22. J. A. Graf von Kielmar-segg, "A German View of Western Defense," *USI*, March 1974, pp. 14-15.
23. Gray, p. 8.
24. *Ibid.*
25. Bennett, p. 470.
26. *Ibid.*
27. *Ibid.*, p. 465.
28. *Ibid.*, p. 471.
29. Gray, p. 9.
30. *Ibid.*
31. Morton Halperin, *Hearings Before the Subcommittee on US Security Agreements and Commitments Abroad and the Subcommittee on Arms Control, International Law and Organization of the Committee on Foreign Relations, United States Senate*, p. 44.
32. Gray, p. 8.
33. *Ibid.*
34. Halperin, p. 20.
35. Speaking about Soviet conduct in World War II, Colonel Sidorenko notes that success was attained by high rates of pursuit (20-40 km for combined-arms and up to 80 km or more for armored divisions). Moreover, he contends that under contemporary conditions, the significance of pursuit increases, that it becomes "the main content of a development of the attack." A. A. Sidorenko, *The Offensive*, pp. 160-161. Steven Canby notes that Soviet doctrine envisages rates of advance of perhaps 100 km per day. Steven Canby, p. 10.
36. Stanley D. Fair, *The Changing Roles for Theater Nuclear Forces*, p. 8.
37. The term NATO guidelines area is an outgrowth of the negotiations on force reductions in Europe and includes the countries of Czechoslovakia, Poland, the German Democratic Republic, Belgium, Luxembourg, the Netherlands, and the Federal Republic of Germany. NATO has tabled a proposal in which the United States would undertake a first-phase withdrawal of 1000 nuclear warheads (together with 54 nuclear-capable F-4 aircraft and 36 Pershing SSM) and 29,000 men in exchange for the withdrawal of 69,000 Soviet ground troops and 1700 medium tanks. See *Strategic Survey 1975*, p. 110.
38. According to the International Institute for Strategic Studies, at present it is uncertain whether the Soviet artillery is nuclear capable. The Soviet Union has approximately 600 FROGs and fewer than 300 Scuds. The maximum range of the FROG and Scud respectively is 45 and 185 miles. See *The Military Balance 1975-1976*, p. 71-73.
39. Fair, p. 12.
40. *Ibid.*, p. 13.
41. Record, p. 51.

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